

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 3/11/2013  
API #: 47-091-01227  
REVISED

Farm name: Charles H. Cather et al Operator Well No.: 513055

LOCATION: Elevation: 1,191' Quadrangle: Rosemont

District: Flemington County: Taylor, WV  
Latitude: 15,110 Feet South of 39 Deg. 20 Min. 00 Sec.  
Longitude 7,900 Feet West of 80 Deg. 07 Min. 30 Sec.

Company: EQT Production Company

Address:	EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
625 Liberty Avenue, Pittsburgh, PA 15222		20	40	40	38
Agent: Cecil Ray		13 3/8	1,040	1,040	912
Inspector: Bryan Harris		9 5/8	2,830	2,830	1,095
Date Permit Issued: 5/19/2011		5 1/2	12,147	12,147	1,426
Date Well Work Commenced: 6/7/2011					
Date Well Work Completed: 1/13/2012					
Verbal Plugging: N/A					
Date Permission granted on: N/A					
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>					
Total Vertical Depth (ft): 6,464 TVD (Plugged back to 2,884' TVD)	*Note: Well was side tracked	TVD(ft): 7,580'	*Note: Well was drilled down dip.		
Total Measured Depth (ft): 12,171'					
Fresh Water Depth (ft.): 55', 330',					
Salt Water Depth (ft.): No visible show					
Is coal being mined in area (N/Y)? No					
Coal Depths (ft.): 332', 523', 602'					
Void(s) encountered (N/Y) Depth(s) No					

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,502' - 7,580'  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 3,694 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 2,752 psig (surface pressure) after 856 Hours

Second producing formation No second formation. Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

3/11/2013  
Date

06/21/2013

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes X No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes, Gyro and MWD Gamma Logs

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

**See Attachment**

Plug Back Details Including Plug Type and Depth(s): 1) Pumped solid cement plug from 6,460' to 6,160'.  
2) Pumped solid cement plug from 3,104' to 2,884'. \*As noted under TVD, well was side-tracked\*

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			
Sand/Shale	0 / 332	/ 332	-- Coal 332 / 335 / 3 -- Red Rock / 335 / 523 / 188 -- Coal / 523 / 527 / 4 /
Sand/Shale	527 / 602	/ 75	-- Coal / 602 / 608 / 6 -- Sand & Shale / 608 / 1,120 / 512 -- Sandstone / 1,120 / 1,320 / 200
Big Lime	1,320 / 1,424	/ 104	-- Big Injun / 1,424 / 1,577 / 152 -- Weir Sand / 1,577 / 1,810 / 232
Gantz	1,810 / 1,879	/ 69	-- Fifty Foot / 1,879 / 1,949 / 70 -- -Thirty Foot / 1,949 / 2,008 / 58 --
Gordon	2,008 / 2,128	/ 119	-- -Fourth Sand / 2,128 / 2,343 / 215 -- Fifth Sand / 2,343 / 2,371 / 27
Bayard	2,371 / 2,783	/ 411	-- B-5 / 2,783 / 3,001 / 218 -- Speechley / 3,001 / 3,332 / 331
Bradford	3,332 / 3,522	/ 189	-- Balltown B / 3,522 / 3,717 / 194 -- Riley / 3,717 / 4,346 / 628
Benson	4,346 / 4,704	/ 358	-- Elk / 4,704 / 6,572 / 1,868 -- Sonyea / 6,572 / 6,901 / 328
Middlesex	6,901 / 7,157	/ 255	-- Genesee / 7,157 / 7,296 / 139 -- Geneseo / 7,296 / 7,316 / 20
Tully	7,316 / 7,369	/ 53	-- Hamilton / 7,369 / 7,502 / 132 -- Marcellus / 7,502 / 7,580 / 78

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<b>EQT WR-35</b>	<b>Completion</b>	<b>Attachment</b>	<b>Well 513055</b>	<b>Treatment</b>	<b>Summary</b>
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<b>Stage</b> 1	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water			
<b>Date</b> 1/10/2012	<b>From / To</b> 11852 - 12092	<b># of perfs</b>	<b>BD Press</b> 7,946.00	<b>ATP Psi</b> 8,454.00	<b>SIP Detail</b> 5 Min: 4401 10 Min: 4268 15 Min: 4250
<b>Avg Rate</b> 85.50	<b>Max Press PSI</b> 8,856.00	<b>ISIP</b> 5,091.00	<b>Frac Gradient</b> 1.12		
<b>Sand Proppant</b> 404,172.00	<b>Water-bbl</b> 10,183.00	<b>SCF N2</b>	<b>Acid-Gal</b> 2,000.00		

<b>Stage</b> 2	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water			
<b>Date</b> 1/10/2012	<b>From / To</b> 11550 - 11792	<b># of perfs</b>	<b>BD Press</b> 7,359.00	<b>ATP Psi</b> 8,375.00	<b>SIP Detail</b> 5 Min: 4587 10 Min: 4311 15 Min: 4172
<b>Avg Rate</b> 92.70	<b>Max Press PSI</b> 8,958.00	<b>ISIP</b> 5,363.00	<b>Frac Gradient</b> 1.15		
<b>Sand Proppant</b> 401,251.00	<b>Water-bbl</b> 9,108.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00		

<b>Stage</b> 3	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water			
<b>Date</b> 1/10/2012	<b>From / To</b> 10950 - 11190	<b># of perfs</b>	<b>BD Press</b> 8,056.00	<b>ATP Psi</b> 8,364.00	<b>SIP Detail</b> 5 Min: 4865 10 Min: 4585 15 Min: 4447
<b>Avg Rate</b> 93.30	<b>Max Press PSI</b> 8,780.00	<b>ISIP</b> 5,530.00	<b>Frac Gradient</b> 1.17		
<b>Sand Proppant</b> 801,642.00	<b>Water-bbl</b> 9,535.00	<b>SCF N2</b>	<b>Acid-Gal</b>		

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<b>Stage</b> 4	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/10/2012	<b>From / To</b> 10950 - 11190	<b># of perfs</b>	<b>BD Press</b> 7,566.00	<b>ATP Psi</b> 8,299.00	<b>SIP Detail</b> 5 Min: 4979 10 Min: 4606 15 Min: 4461	
<b>Avg Rate</b> 96.70	<b>Max Press PSI</b> 8,733.00	<b>ISIP</b> 5,524.00	<b>Frac Gradient</b> 1.17			
<b>Sand Proppant</b> 398,242.00	<b>Water-bbl</b> 10,019.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 5	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/11/2012	<b>From / To</b> 10650 - 10892	<b># of perfs</b>	<b>BD Press</b> 7,261.00	<b>ATP Psi</b> 8,334.00	<b>SIP Detail</b> 5 Min: 4906 10 Min: 4628 15 Min: 4485	
<b>Avg Rate</b> 94.00	<b>Max Press PSI</b> 8,640.00	<b>ISIP</b> 5,605.00	<b>Frac Gradient</b> 1.18			
<b>Sand Proppant</b> 403,271.00	<b>Water-bbl</b> 10,010.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 6	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/11/2012	<b>From / To</b> 10350 - 10592	<b># of perfs</b>	<b>BD Press</b> 7,404.00	<b>ATP Psi</b> 8,230.00	<b>SIP Detail</b> 5 Min: 5144 10 Min: 4788 15 Min: 4581	
<b>Avg Rate</b> 94.40	<b>Max Press PSI</b> 8,570.00	<b>ISIP</b> 5,424.00	<b>Frac Gradient</b> 1.16			
<b>Sand Proppant</b> 405,533.00	<b>Water-bbl</b> 9,436.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 7	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/12/2012	<b>From / To</b> 10050 - 10290	<b># of perfs</b>	<b>BD Press</b> 7,332.00	<b>ATP Psi</b> 8,191.00	<b>SIP Detail</b> 5 Min: 4853 10 Min: 4512 15 Min: 4344	
<b>Avg Rate</b> 88.30	<b>Max Press PSI</b> 8,943.00	<b>ISIP</b> 5,499.00	<b>Frac Gradient</b> 1.16			
<b>Sand Proppant</b> 408,550.00	<b>Water-bbl</b> 11,822.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

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<b>Stage</b> 8	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/12/2012	<b>From / To</b> 9750 - 9992	<b># of perfs</b>	<b>BD Press</b> 7,839.00	<b>ATP Psi</b> 8,266.00	<b>SIP Detail</b> 5 Min: 5119 10 Min: 4749 15 Min: 4530	
<b>Avg Rate</b> 95.10	<b>Max Press PSI</b> 8,912.00	<b>ISIP</b> 5,603.00	<b>Frac Gradient</b> 1.18			
<b>Sand Proppant</b> 405,170.00	<b>Water-bbl</b> 9,880.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

<b>Stage</b> 9	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/12/2012	<b>From / To</b> 9450 - 9692	<b># of perfs</b>	<b>BD Press</b> 7,872.00	<b>ATP Psi</b> 8,133.00	<b>SIP Detail</b> 5 Min: 5049 10 Min: 4648 15 Min: 4392	
<b>Avg Rate</b> 98.40	<b>Max Press PSI</b> 8,383.00	<b>ISIP</b> 5,411.00	<b>Frac Gradient</b> 1.15			
<b>Sand Proppant</b> 395,022.00	<b>Water-bbl</b> 9,943.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

<b>Stage</b> 10	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/12/2012	<b>From / To</b> 9150 - 9390	<b># of perfs</b>	<b>BD Press</b> 7,475.00	<b>ATP Psi</b> 8,045.00	<b>SIP Detail</b> 5 Min: 5048 10 Min: 4673 15 Min: 4455	
<b>Avg Rate</b> 99.70	<b>Max Press PSI</b> 8,418.00	<b>ISIP</b> 5,647.00	<b>Frac Gradient</b> 1.18			
<b>Sand Proppant</b> 397,469.00	<b>Water-bbl</b> 9,828.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

<b>Stage</b> 11	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/13/2012	<b>From / To</b> 9150 - 9390	<b># of perfs</b>	<b>BD Press</b> 7,475.00	<b>ATP Psi</b> 7,759.00	<b>SIP Detail</b> 5 Min: 5048 10 Min: 4673 15 Min: 4455	
<b>Avg Rate</b> 97.80	<b>Max Press PSI</b> 8,356.00	<b>ISIP</b> 5,338.00	<b>Frac Gradient</b> 1.14			
<b>Sand Proppant</b> 397,469.00	<b>Water-bbl</b> 9,828.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

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<b>Stage</b> 12	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/13/2012	<b>From / To</b> 8550 - 8792	<b># of perfs</b>	<b>BD Press</b> 6,835.00	<b>ATP Psi</b> 8,002.00	<b>SIP Detail</b> 5 Min: 5088 10 Min: 4845 15 Min: 4696	
<b>Avg Rate</b> 95.60	<b>Max Press PSI</b> 8,962.00	<b>ISIP</b> 6,035.00	<b>Frac Gradient</b> 1.23			
<b>Sand Proppant</b> 404,740.00	<b>Water-bbl</b> 10,187.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 13	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/13/2012	<b>From / To</b> 8250 - 8492	<b># of perfs</b>	<b>BD Press</b> 6,399.00	<b>ATP Psi</b> 7,617.00	<b>SIP Detail</b> 5 Min: 4193 10 Min: 4081 15 Min: 4010	
<b>Avg Rate</b> 94.00	<b>Max Press PSI</b> 8,116.00	<b>ISIP</b> 4,575.00	<b>Frac Gradient</b> 1.04			
<b>Sand Proppant</b> 401,820.00	<b>Water-bbl</b> 9,807.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 14	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Water				
<b>Date</b> 1/13/2012	<b>From / To</b> 7950 - 8190	<b># of perfs</b>	<b>BD Press</b> 6,747.00	<b>ATP Psi</b> 6,903.00	<b>SIP Detail</b> 5 Min: 4227 10 Min: 4061 15 Min: 3980	
<b>Avg Rate</b> 100.20	<b>Max Press PSI</b> 8,541.00	<b>ISIP</b> 4,951.00	<b>Frac Gradient</b> 1.09			
<b>Sand Proppant</b> 399,543.00	<b>Water-bbl</b> 9,801.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

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